

JAMES IRRIGATION DISTRICT

RECEIVED
BUREAU OF RECLAMATION
SCCAO
FRESNO CA

Incorporated February 16, 1920

BOARD OF DIRECTORS
Kenneth R. Hale, President
Robert Motte, Vice-President
George Ayerza, Sr.
Thomas W. Chaney
John W. Kinnunen

8749 Ninth Street
Post Office Box 757
Joaquin, California 93660-0757

John Mallyon, Manager
Donna Hanneman, Secretary

Telephone: (559) 693-4356
Facsimile: (559) 693-4357

2003 SEP 30 P 3:28

RECEIVED

001 03 2003

ENTRIX, INC. September 29, 2003
FRONT DESK

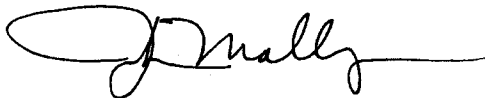
Mr. David Young
Bureau of Reclamation
South-Central Area Office
1243 "N" Street
Fresno, California 93721-1813

Subject: Draft Environmental Impact Statement (DEIS)
for the Mendota Pool 10 - Year Exchange Agreement

Dear Mr. Young:

In response to a request for comments on the above referenced subject, James Irrigation District requests the right to prohibit well water from being pumped into the Mendota Pool that exceeds the Bureau of Reclamation's water quality standard in James' Water Service and Schedule 2 Contracts. The concern we have is that there have been instances in the past when water was moving in a southerly direction in the Mendota Pool, crop seedlings were damaged when irrigated with an elevated TDS quality with well water that was pumped into the Mendota Pool and diverted by James Irrigation District.

Sincerely,



John Mallyon

KEYWORD
FILE CODE ENV-6-00

OFFICIAL FILE COPY	
CODE	ACTION / SURNAME & DATE
411	

10/1/03 Ted Dom
ENTRIX

**Response to Comments from
James Irrigation District**

Reclamation acknowledges the concerns expressed in the comment and is working to ensure that water quality standards are met. The MPG has committed to monitoring irrigation water quality in the Pool. The monitoring conducted by the MPG between 1999 and 2003 has shown that water quality standards at the Mendota Wildlife Area (south of the MPG well field) have been met during periods when the MPG was pumping.

Changes in water quality between the MWA and the JID booster plant were not evaluated for the EIS. JID is located near the southern end of the Pool, and there are other sources of inflow to the Pool between the MPG wells and the JID intakes. The Mendota Wildlife Area diverts water from the Pool in the fall and drains its waterfowl ponds back into the Pool in the spring. Tranquillity Irrigation District takes water from the Pool and discharges water to the Pool at its canals. Further information is required before it can be shown that the stated impacts to seedlings occurred as the result of MPG pumping.

FRIANT
BUREAU OF RECLAMATION
WATER USERS AUTHORITY
FRESNO CA

September 26, 2003
2003 SEP 29 P 1:38

KEYWORD
FILE CODE ENV-4-00

OFFICIAL FILE COPY		
CODE	ACTION	SURNAME & DATE
411		

DATE ACTION TAKEN
9/30/03 Ted D. W. N
ENTRIX

Kole M. Upton
Chairman of the Board

Harvey A. Bailey
Vice Chairman

Marvin L. Hughes
Secretary/Treasurer

Dan Fults
General Manager

Gary W. Sawyers
General Counsel

Mr. David Young
Bureau of Reclamation
South-Central Area Office
1243 "N" Street
Fresno, CA 93721-1813

Subject: Comments on the Draft Environmental Impact Statement (DEIS) for the Mendota Pool 10-Year Exchange Agreements

Dear Mr. Young:

The Friant Water Users Authority (FWUA) is in receipt of the subject DEIS for the Mendota Pool 10-Year Exchange Agreements. FWUA received notice of the public release of this document on July 29, 2003, and subsequently downloaded the document from the United States Bureau of Reclamation website. FWUA appreciates the opportunity to review and provide comment on behalf of our Member Districts. ①

After reviewing the document, it is apparent that while much attention and discussion has been given to the subject of water quality and local well impacts, there has been an inadequate analysis of the impact the Mendota Pool Group (MPG) pumping program has on the Delta-Mendota Canal (DMC) water supply due to increased seepage in the San Joaquin River branch of the Mendota Pool. It is acknowledged in the DEIS that there will be a significant drawdown of the shallow aquifer due to MPG pumping, and that well owners within the San Joaquin River Exchange Contractors (SJREC) service area and the Newhall Land and Farming (NLF) service area will be compensated for increased energy costs and other costs incurred due to the MPG pumping program. There is, however, no mention of compensation or mitigation to those agencies, such as the FWUA, who bear a portion of the financial cost of providing the additional DMC water to recharge the groundwater supply that is subsequently withdrawn by the MPG pumpers. ②

From a land subsidence perspective, it is the additional groundwater recharge by water from the DMC that makes the entire MPG pumping program feasible. Without additional recharge from the DMC, the irreversible subsidence, as it is termed by the DEIS, would be significantly greater than the average 0.005 foot per year criteria established by the DEIS as the threshold between significant and insignificant subsidence impacts. The upper aquifer system would not rebound in ③

Main Office
854 N. Harvard Avenue
Lindsay, CA 93247

Phone: 559-562-6305
Fax: 559-562-3496

Construction and Maintenance Offices
860 Second Street
Orange Cove, CA 93646

Phone: 559-626-4444
Fax: 559-626-4457

332 Norwalk
Delano, CA 93215

Phone: 661-725-0800
Fax: 661-725-9545

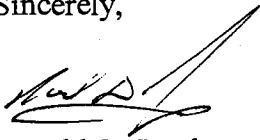
Sacramento Office
1521 I Street
Sacramento, CA 95814

Phone: 916-441-1931
Fax: 916-441-1581

an "elastic" fashion each winter as stated in the DEIS, but rather, would continue falling along with the ground surface elevations. We have been informed that inclusion of the 2002 pumping data in the DEIS would clearly demonstrate the accelerated subsidence caused by the MPG pumping program. Failure to include all relevant available data in the analysis is likely to result in a deficient EIS.

- ④ In addition, without an increased supply of DMC water, the falling groundwater levels would inevitably draw the cone of depression below the southwestern portion of Madera County closer to the Mendota Pool. All potential environmental improvements to the San Joaquin River above Mendota Pool would be significantly hindered if this were to occur. Existing riparian habitat, which relies entirely on shallow, alluvial groundwater to survive, could be endangered, while new riparian habitat could not be introduced into the area of the river above the Mendota Pool.
- ⑤ Again, the FWUA appreciates the opportunity to provide comments on the proposed project. While we understand the need for creative water management programs and encourage their development, the impacts associated with these programs must be fully determined. We look forward to the future evaluation and discussion of our concerns and the concerns of other stakeholders.

Sincerely,



Ronald D. Jacobsma
Interim General Manager

cc: FWUA Member Districts
Mario Santoyo, Water, Environmental and Facilities Resources Manager, FWUA
John Roldan, Chief Engineer, FWUA
William H. Luce, U.S. Bureau of Reclamation, SCCAO

**Response to Comments from
Friant Water Users Authority**

Paragraph 1

Response: Comment noted. No response necessary.

Paragraph 2

Response: The proposed action will reduce, not increase, inflow to the Mendota Pool from the DMC. Under the proposed action, the MPG would pump water into the Pool and an equivalent amount (up to 25,000 acre-feet per year) would be redirected from the DMC into the San Luis Canal for delivery to MPG lands elsewhere in the CVP service area. The amount of DMC inflow to the Pool would be reduced by this amount.

Neither deep zone pumping in FWD nor shallow zone pumping along the Fresno Slough is anticipated to alter the rate of seepage from the San Joaquin River arm of the Pool, as discussed in Section 3.4.2.3 and Section 4.1.1.2. Water level data from shallow NLF monitoring wells indicate that this pumping in FWD has only a minimal effect on the shallow portion of the upper aquifer system near the San Joaquin River due to the presence of confining layers such as the A-clay.

The Settlement Agreement is the result of litigation between the San Joaquin River Exchange Contractors (SJREC) and Newhall Land and Farming (NLF), and the MPG. As part of that agreement, the MPG agreed to compensate SJREC and NLF for increased pumping costs that were directly attributable to MPG transfer pumping. These parties have developed an approach to determining fair compensation, based on exchange of data on pumpage and groundwater levels. As stated in Section 4.1.1.1, compensation will be paid to well owners who are not parties to the Settlement Agreement at their request, and would be calculated similarly. Parties who wish to be included in the compensation program need to provide monthly pumpage data to the MPG by January 31 of the following year.

In recent years, flows in the San Joaquin River below Friant Dam have been limited. The San Joaquin River between Friant Dam and Mendota Pool is a losing reach. During most years, flows in the San Joaquin River below Friant Dam do not reach the Mendota Pool. As discussed above, deep zone pumping in FWD by the MPG does not appreciably affect seepage from the San Joaquin arm of the Pool. MPG pumping would not be expected to have any effect on seepage above Gravelly Ford because this area is much further away from the MPG wells.

Paragraph 3

Response: Although the amount of DMC inflow would be less due to the proposed action, the amount of water in the Pool and seepage from the Pool would not change. MPG transfer pumping is not expected to cause either increases or decreases in Pool seepage.

The 2002 raw compaction data from the Yearout Ranch extensometer were not provided to the MPG until July 2003, shortly before the draft EIS was released for public comment. The 2002 compaction data have been analyzed for the 2002 Annual Report and indicate that compaction attributable to MPG pumping between 2000 and 2002 meets the subsidence criterion specified in the Settlement Agreement (i.e., an average of 0.005 foot per year). For more information, see response to General Comment 2 from Madera County (page F-121).

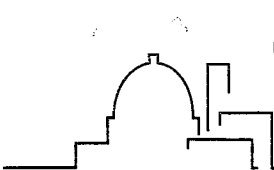
The draft EIS used all data that were available at the time the draft EIS was prepared. Reclamation believes that the data that were available at the time the draft EIS was prepared support the analyses and interpretation presented in the document.

Paragraph 4

Response: As discussed in response to Paragraph 2, above, MPG transfer pumping has a negligible effect on seepage from the Mendota Pool or the San Joaquin River upstream of the Pool. Therefore, the proposed action would have no effect on the establishment or maintenance of riparian habitat above the Pool.

Paragraph 5

Response: Comment noted. No response necessary.

**SMUD**

SACRAMENTO MUNICIPAL UTILITY DISTRICT
BUREAU OF RECLAMATION
The Power to Do More
SCCAO
FRESNO, CA

P.O. Box 15830, Sacramento, CA 95852-1830; 1-888-742-SMUD (7683)

2003 SEP 22 P 3: 26

September 17, 2003
ET&C 03-286

Mr. David Young
Bureau of Reclamation
United States Department of the Interior
South-Central Area Office
1243 "N" Street
Fresno, CA 93721-1813

KEYWORD		
FILE CODE ENV-6.00		
OFFICIAL FILE COPY		
CODE	ACTION	SIGNATURE & DATE
411		Dg
DATE ACTION TAKEN		
COPIES TO		

**Subject: Draft Environmental Impact Statement (DEIS) for the Mendota Pool
10-Year Exchange Agreements, July 2003**

Dear David,

- ① The Sacramento Municipal Utility District (SMUD) is both a Central Valley Project (CVP) power and water customer. SMUD, as one of the largest CVP preference power customers, provides not only payments into the Restoration Funds but repayment of the CVP plant-in-service and Operations and Maintenance costs allocated to power. SMUD has a major financial interest in the prudent management of CVP facilities and resources. SMUD has significant concerns regarding the policies and programs proposed by the Bureau of Reclamation (Reclamation) to modify the operations, management and physical facilities of the CVP. SMUD has the following comments on the DEIS for the Mendota Pool 10-Year Exchange Agreements, July 2003.
- ② SMUD supports the actions taken by this proposed project. SMUD supports the regional strategy to maximize the efficiency of water use for beneficial uses where institutionally and financially feasible.
- ③ It is noted that the water utilized by this program is Warren Act water. The Warren Act stipulates that any entity wishing to use Reclamation facilities to transfer non-project water may do so, subject to certain conditions. These conditions include the provision that there is excess capacity available in the system to affect the transfer, and the entity provides the necessary power to move the water.
- ④ As stated in our earlier comment letter, the allocation of costs is of primary concern to the CVP Preference Power Customers. The project proponents should be responsible for acquiring the power supply necessary to accomplish the proposed actions. On page E-15 it is stated that the Mendota Pool program will not affect the availability of project power or availability to preference power to customers or other users. It will not have an effect

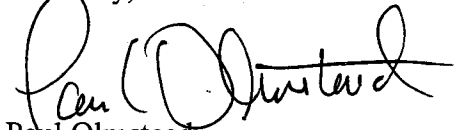
COPY

upon central valley operations. It is our understanding that any use of the CVP will be paid for by the beneficiaries of the project at the current market rates, and not by depleting existing CVP resources. The CVP Preference Power Customers would like to assure that Reclamation does not pick up the cost of pumping the power for the water users of the area. Reclamation's role should be limited to one of coordinating the operation.

- ⑤ SMUD agrees that conflicts regarding the use of water must be reduced, be equitable to all, be affordable, be long lasting, be implementable, and have no significant redirected impacts. SMUD will continue to support these actions as long as the benefactors of the project bring their own power for the necessary pumping that will be required for project purposes.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Olmstead", written over a horizontal line.

Paul Olmstead
Water & Power Resources Specialist
Sacramento Municipal Utility District
(916) 732-5716

**Response to Comments from
Sacramento Municipal Utility District (SMUD)**

Paragraph 1

Response: Comment noted. No response required.

Paragraph 2

Response: Comment noted. No response required.

Paragraph 3

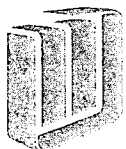
Response: As discussed in Section 4.8, there will be no effect on CVP operations as a result of the proposed action. The proponents are responsible for all costs of power. Neither “project” power nor “preference” power is used to pump the water. Power is provided by existing utilities at standard commercial rates. The cost of power is recouped in fees paid by the MPG to the San Luis and Delta-Mendota Water Authority, who administers the exchange on behalf of Westlands Water District.

Paragraph 4

Response: As discussed above, the MPG will be charged for the cost of delivering the exchanged water through the fees levied by the San Luis and Delta-Mendota Water Authority.

Paragraph 5

Response: Comment noted. No response required.



RECEIVED
BUREAU OF RECLAMATION
SCCAO
FRESNO CA
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

2003 SEP 29 P 1:38

Executive Office

KEYWORD			
FILE CODE ENV-6-00			
OFFICIAL FILE COPY			
CODE	ACTION	SURNAME	DATE
411			
DATE 9/30/03			
BY TEDDOR			

ENTRIX

September 15, 2003

Mr. David Young
United States Department of the Interior
Bureau of Reclamation
South-Central California Area Office
1243 "N" Street
Fresno, California 93721-1813

Dear Mr. Young:

Draft Environmental Impact Statement for Mendota Pool 10-Year Exchange Agreements

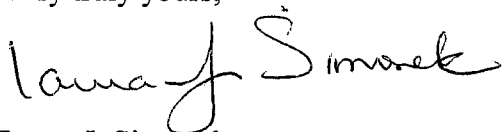
① The Metropolitan Water District of Southern California (Metropolitan) has received and reviewed a copy of the Draft Environmental Impact Statement (EIS) for Mendota Pool 10-Year Exchange Agreements (EIS No. 01-81). The Draft EIS evaluates the proposed exchange of up to 25,000 acre-feet of water per year over a ten-year period between the U.S. Bureau of Reclamation (Reclamation) and the Mendota Pool Group (MPG). The purpose of the proposed project is to provide water to irrigable lands on MPG properties in Westlands Water District and San Luis Water District to offset substantial reductions in contract water supplies attributable to the Central Valley Project Improvement Act, the Endangered Species Act listings and regulations, and new Bay-Delta water quality rules. This water would enable the MPG farmers to maintain production on historically irrigated lands. The project is not intended to increase the amount of water for farming activities, but would replace some of the contract water lost because of increased environmental regulations that restrict water deliveries south of the export pumps at Tracy, California. Metropolitan has reviewed the Draft EIS with respect to potential water supply and water quality impacts upon its State Water Project (SWP) supplies and has the following comments.

② *Section ES.1 (Proposed Project), page ES-3, paragraph 2.* The description of the hydrologic year-type classification for the proposed project needs elaboration in order to understand the expected number of dry, normal, and wet years. This could be done by relating it to standard water year classifications by the State Department of Water Resources in order to determine how many years in any sequence are likely to be wet, normal, or dry. The current description contains no information on how often each year-type is expected.

Mr. David Young
Page 2
September 15, 2003

- ③ *Section 4.4.1.3 (Potential for Effects in Northern Fresno Slough).* The document states that due to design constraints "MPG pumpage would not introduce additional salts, boron, or selenium into the lower San Joaquin River, thereby affecting the TMDLs for these constituents." This being the case, there should be no impact on the quality or quantity of Metropolitan's SWP supplies. This is predicated upon the project complying with design constraints and continued monitoring of project activities. The Draft EIS notes that the MPG is an unincorporated association of eleven private entities. Given this structure, the Draft EIS should make clear what institution is responsible for assuring that the project is operated within the design constraints identified in the document and what oversight will be performed by Reclamation to assure that: (1) the project is operated in ways identified in the Draft EIS to mitigate impacts, and (2) the monitoring program described in Appendix B is executed. Further, in the event that the monitoring program indicates unanticipated impacts or impacts intended to be avoided, the EIS should indicate the administrative structures and remedies in place to address such events.
- ④ We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental documentation for this project. If we can be of further assistance, please contact Ms. Carissa Dunn at (213) 217-5652.

Very truly yours,



Laura J. Simonek
Manager, Environmental Planning Team

JAH/rdl
(Public Folders/EPU/Letters/15-SEP-03B.doc - David Young)

**Response to Comments from
Metropolitan Water District of Southern California (MWD)**

Paragraph 1

Response: Comment noted. No response required.

Paragraph 2

Response: The text on page 2-2 (Section 2.1.1) has been clarified. The primary factor determining the water year classification will be Reclamation's April 15 estimate of agricultural water allocations for that year. Reclamation's estimate is based on the hydrologic conditions of the water year to that point and the amount of water in storage and available for distribution to its contractors. The constraints of the Settlement Agreement will be superimposed upon these determinations. In addition, the MPG may choose to limit pumpage for exchange if groundwater conditions so indicate.

Paragraph 3

Response: Reclamation would be responsible for ensuring that the proposed action is operated within the specified design constraints through its exchange contracts with the Pool Group members. The MPG has engaged the services of an agent to oversee the pumping program and the technical consultants to the MPG. In addition, preparation of annual monitoring reports is required under the terms of the Settlement Agreement. Submittal of the monitoring data and annual reports to Reclamation will be required under the terms of the exchange contracts. The annual reports are prepared by the consultants to the MPG in conjunction with consultants to SJREC and NLF. These entities have a vested interest in ensuring that the proposed action is operated within the design constraints.

Paragraph 4

Response: Comment noted. No response required.

Civic Center Square
2444 Main Street, Suite 215
Fresno, California 93721-2734
(559) 264-2535 • FAX (559) 264-7431

RECEIVED
BUREAU OF RECLAMATION
SCCAO
FRESNO CA



September 14, 2004

2004 OCT -7 P 2:16

KEYWORD	MPG
FILE CODE	WTR-4.00

Mr. Sarge Green
Tranquility Irrigation District
Post Office Box 487
Tranquility, California 93668

Subject: Mendota Pool Group Proposed Water Exchange Program

Dear Mr. Green:

OFFICIAL FILE COPY		
CODE	ACTION	SURNAME & DATE
414		
102		
DATE ACTION TAKEN		
COPIES TO 414		
Hard deliv'd		

As you know, the Mendota Pool Group (MPG) is an association of growers with property and water wells in the vicinity of the Mendota Pool in western Fresno County and elsewhere on the west side of the San Joaquin Valley. The MPG has pumped non-Central Valley Project (CVP) groundwater from their wells into the Mendota Pool for transfer and exchange with water from the CVP in 1999, 2000, and 2001 and then delivered to MPG-owned lands elsewhere in the CVP service area.

The MPG proposes to continue exchanging water in the future and as such has been required by the U.S. Bureau of Reclamation (USBR) to prepare an Environmental Impact Statement (EIS) for future exchanges. MPG has completed a final EIS for future exchanges covering a period of 10 years. The EIS concludes that the cumulative impact on surface water quality of the 10-year proposed program is considered to be less-than-significant. A surface water quality monitoring program in the Mendota Pool will be conducted by MPG to ensure that applicable water quality standards are met during the 10-year program. MPG's annual pumping programs will incorporate design constraints and will be subject to adaptive management during the pumping season so that water quality standards will not be exceeded.

The MPG recognizes that the USBR has CVP contractors whose water delivery depends on the Mendota Pool. This letter is to emphasize the safeguards the MPG has built into the program to ensure that the water quality in the Mendota Pool and the water quality of your own water delivered via the Mendota Pool is protected.

I encourage you to let me know if you have any questions or concerns about the proposed exchange program and the safeguards built into the program to ensure water quality is maintained.

THE EXCHANGE PROGRAM

The objective of the proposed program is to enable the MPG to maintain production on historically irrigated lands by obtaining water at cost-effective prices sufficient to offset cutbacks in CVP deliveries. The program is not intended to increase the amount of water for farming activities but would replace water that has been re-allocated for other CVP purposes. The maximum volume of water to be pumped each year would be based on hydrologic supply

Geomatrix Consultants, Inc.
Engineers, Geologists, and Environmental Scientists

COPY



Mr. Sarge Green
Tranquility Irrigation District
September 14, 2004
Page 2

conditions and would be subject to strict design constraints. Up to 25,000 acre-feet of water would be exchanged with the USBR each year to make up for a portion of the annual shortfall in the contract water to be delivered via the CVP.

The water pumped into the Mendota Pool would be made available to the USBR to offset existing water contract obligations in the Mendota Pool. In exchange, the USBR would make an equivalent amount of CVP water available to the members of the MPG for irrigation purposes via Check 13 of the Delta Mendota Canal (DMC) or the San Luis Canal (SLC).

The maximum allowable quantity of water to be pumped in a given year will depend on whether the year is classified as wet (0 acre-feet per year), normal (up to 31,600 acre-feet per year), or dry (up to 40,000 acre-feet per year). The MPG will determine the classification of each year during the spring based primarily on estimated water demands and the projected allocation for that year. In addition, as the MPG has committed to meeting applicable water quality criteria in the Mendota Pool, these water quality constraints may further limit the amount of water that may be pumped in any given year.

Once the water has been pumped into the Mendota Pool, it will be provided to farmlands owned or operated by MPG members in the following three ways:

- Delivery from the Mendota Pool to irrigated farmlands in Westlands Water District (WWD) via Lateral 6 and possibly Lateral 7. Since most of the MPG lands are not served by these laterals, this water would be exchanged with WWD for other water delivered to MPG lands via the SLC.
- Exchange with other water districts for water delivered to MPG lands via the SLC.
- Exchange of up to 25,000 acre-feet with the USBR for water at Check 13 of the DMC (i.e., the O'Neill Forebay) and conveyed via the SLC for delivery to WWD and San Luis Water District.

WATER QUALITY SAFEGUARDS

The exchange program will be adaptively managed to minimize any potential environmental impacts. Groundwater pumping schedules will be developed and reviewed on an annual basis to allow for year-to-year variations in hydrologic conditions. The pumping schedules will be defined in the early part of the calendar year prior to the start of pumping. The pumping schedules would be based on consideration of several parameters including the design constraints (including surface water and groundwater quality), the results of the monitoring

Mr. Sarge Green
Tranquility Irrigation District
September 14, 2004
Page 3

program, the extent of groundwater level recovery, hydrologic conditions, and any USBR contractor's rescheduling of CVP deliveries from the previous water year.

Monitoring Program

The monitoring program conducted by MPG is comprehensive and unlike any other groundwater and surface water monitoring conducted on the west side of the San Joaquin Valley. The monitoring program consists of collecting detailed information on groundwater pumpage, levels, and quality, surface water flow direction and quality, compaction, and sediment quality.

With respect to surface water quality, the MPG conducts surface water sampling at 13 stations in the Mendota Pool, the DMC, and in canals that divert water from the pool. During periods when transfer pumping is occurring, a monthly sampling schedule is maintained by the MPG at the DMC terminus in the northern portion of the Fresno Slough and at three locations in the southern portion of the Slough: the Mendota Wildlife Area (MWA), the James Irrigation District Booster Plant, and the Lateral 6 & 7 intake. At the remaining nine sampling stations, the MPG will collect two samples per year, typically in June and October. The MPG also operates a continuous electrical conductivity (EC) recorder at the MWA bridge located one mile south of Whites Bridge.

The USBR has been monitoring EC in the DMC at Bass Avenue since 1993 using a continuous recorder. As part of the DMC Water Quality Monitoring Program, the USBR has also analyzed daily composite samples from the DMC and the Central California Irrigation District (CCID) Main Canal at Bass Avenue since July 2002. Monthly grab samples are also collected from these locations by the USBR and analyzed. The San Joaquin River Exchange Contractors (SJREC) operates continuous EC recorders at its five canal intakes (Columbia Canal, CCID Main Canal, CCID Outside Canal, Firebaugh Intake Canal, and San Luis Canal Company [SLCC] Arroyo Canal). The SJREC also collects monthly grab samples at the canal intakes. In the southern portion of the Fresno Slough, continuous EC monitoring has been conducted by James Irrigation District at its booster plant on the James Bypass since June 2001.

Design Constraints

The exchange program incorporates several design constraints intended to prevent adverse environmental effects, developed based on the results of previous monitoring efforts and to address concerns of other water users around the Mendota Pool. These constraints are intended to minimize the potential environmental impacts of the proposed pumping program. The constraints apply to the initial design of the annual pumping programs and to triggers based on the results of the annual monitoring program. These design constraints address

Mr. Sarge Green
Tranquility Irrigation District
September 14, 2004
Page 4

groundwater levels and quality, surface water quality, and land subsidence. Constraints specifically for surface water quality (in the Mendota Pool) include:

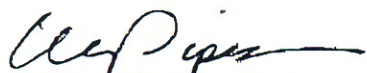
- Pump MPG wells along the Fresno Slough only when flow in the Fresno Slough is to the south.
- Shut off MPG wells if EC measurements at the Exchange Contractors' canal intakes exceed that of the DMC by 90 micromhos per centimeter (umhos/cm) for a period of three days or more. If the MPG wells are shut off for this reason, they would not be turned back on until the EC at the canal intakes returns to a level that is no more than 30 umhos/cm above the DMC inflow.
- Modify the pumping program based on the results of the surface water and groundwater quality monitoring program to reduce overall surface water quality degradation, particularly with respect to salinity (total dissolved solids [TDS] or EC). This will ensure that the quality of water supplied to the MWA and other users in the southern portion of the Mendota Pool will meet applicable water quality criteria.
- Wells with TDS concentrations greater than 2,000 milligrams per liter (mg/L) will not be pumped as part of this program. During the fall pumping period when there is reduced flow in the Mendota Pool and water quality at the MWA is most critical, wells with TDS higher than 1,200 mg/L will not be pumped for transfer.
- Shut off wells with selenium concentrations equal to or greater than the water quality criterion of 2 micrograms per liter.

These design constraints will be used to ensure that surface water quality does not exceed guidelines for the Mendota Pool and the MWA due to the proposed program. The planned quantity and quality of groundwater pumped into the Mendota Pool will be adjusted during each year of the proposed action to ensure that the surface water quality criteria for salinity will be met.

Mr. Sarge Green
Tranquility Irrigation District
September 14, 2004
Page 5

Again, I encourage you to contact me by calling or writing if you have any questions or concerns about the MPG's proposed exchange program or the safeguards built into the program by the MPG to ensure water quality is maintained.

Sincerely yours,



William V. Pipes
Agent, Mendota Pool Group

cc: Jeannie Fairless, Fresno Slough Water District/Tranquility Public Utility District
Joe Coehlo, Coehlo Family Trust
John Mallyon, James Irrigation District/Reclamation District 1606
Steve Brueggemann, Mendota Wildlife Area
David Young, U. S. Bureau of Reclamation



State of California - The Resources Agency Arnold Schwarzenegger, Governor

DEPARTMENT OF FISH AND GAME

4333 S Santa Fe Grade

P.O. Box 37

Mendota, CA 93840

(559) 855-4645

(559) 855-1517 (FAX)



To: William Pipes
Agent, Mendota Pool Group

Date: February 9, 2004

RECEIVED
OCT 01 2004

From: Steve Brueggemann
Associate Wildlife Biologist
Department of Fish and Game
Mendota Wildlife Area
sbrueggemann@dfg.ca.gov

Subject: Mendota Pool Group Water Exchange Program

Dear Mr. Pipes:

Thank you for the correspondence dated 9/17/2004. I shared this letter with Dr. Andy Gordus, Environmental Specialist IV with DFG's San Joaquin Valley Southern Sierra Region. His concerns were limited to the 40,000 acre feet of "dry year" pumping and the timing with which that quantity of water would be pumped over the course the year. As you are probably aware the wildlife area's late fall and winter water use constitutes a significant proportion of all water use from the Mendota Pool during this timeframe. Without adequate dilution the possibility for environmental impacts appear to be greater. The monitoring safeguards that are in place may be sufficient to shut down pumping once threshold limits are detected, however I assume the time lag associated with sampling could allow for significant acreage of wetlands being flooded with poor quality water.

Another concern I have is the reported subsidence in elevation near the Mendota Dam. Over the last ten years my observations of gravity fed portions of the wildlife area indicate that water depth has been decreasing, this leads to degradation in wetland habitat quality. I do not know the dynamics of this subsidence, or if the shallow groundwater pumping is a contributing factor, but any information you have on the subject would be appreciated.

Sincerely,



October 25, 2004
File No. 04-1-013

Mr. Steve Brueggemann
California Department of Fish and Game
Mendota Wildlife Area
P.O. Box 37
Mendota, CA 93640

**SUBJECT: RESPONSE TO CONCERNS ABOUT MENDOTA POOL GROUP
ENVIRONMENTAL IMPACT STATEMENT**

Dear Mr. Brueggemann:

Thank you for your response to the September 17, 2004 letter from Mendota Pool Group (MPG) Agent William Pipes. That letter concerned the Environmental Impact Statement (EIS) for the 10-year MPG transfer pumping program and outlined design constraints and other safeguards that are protective of surface water quality in the Mendota Pool. In your response, you expressed two concerns about the MPG transfer pumping project. One concern was that MPG pumping in dry years could cause surface water quality impacts at the Mendota Wildlife Area (MWA), especially during the fall. The other concern was about the effect of pumping on subsidence at Mendota Dam, which was indicated to have affected gravity fed portions of the MWA during the last ten years. Both of these issues are addressed below.

Surface Water Quality

Although the EIS allows the MPG to pump up to 40,000 acre-feet during a dry year, this level of pumpage is unlikely to occur given the surface water quality limitations and other constraints on MPG transfer pumping. Simulations conducted for the EIS indicate that the maximum transfer pumpage would be a little over 31,000 acre-feet during both normal and dry years (EIS Table 4-1). MPG pumpage during the fall will be especially limited due to the low volume of flow in the Pool. The EIS states that the MPG will ensure that its pumping does not cause exceedances of surface water quality criteria for salinity and trace elements at the MWA (Section 2.1.2.3). Salinity is the primary concern, and salinity standards will be protected by: 1) Use of the surface water mixing model at the beginning of each pumping season to design MPG pumping programs that maintain water quality, 2) use and updating of the mixing model on a regular basis during the fall to incorporate actual flows and water quality, and 3) use of water quality data collected by the MPG monitoring program.

Monthly grab samples are collected from the MWA and analyzed for irrigation suitability including electrical conductivity (EC) and total dissolved solids (TDS). Data from the continuous EC recorder operated by the MPG at the MWA bridge are also downloaded monthly. Your comment is correct in that there is a lag between the time that samples are collected and analyzed, but the program does not rely exclusively on sample results for that reason. The sample results are used to check the accuracy of the model both during the year and at the end of the year. Although the model is run with a monthly time step for planning purposes prior to the start of the irrigation season, it can also be run with a daily time step. This will be done once a week during October and November when the MWA is withdrawing water to fill its ponds to ensure that exceedances of salinity criteria do not occur.

Inputs to the daily model are the salinity of the DMC inflow at Check 21 (available from Reclamation's website) and demands in the southern portion of Mendota Pool (obtained from the San Luis and Delta-Mendota Water Authority). The most recent ground-water quality data from MPG wells are also used in the model. The output is a daily TDS concentration at the MWA, which in the past has been quite accurate when checked against grab sample data collected on a particular day. At the end of the year, the model results are also checked against continuous EC data from the continuous recorder at the MWA bridge (with a monthly time step). These checks were made at the end of 2002 and 2003, and are summarized in the 2002 and 2003 MPG Annual Reports (Luhdorff and Scalmanini Consulting Engineers and Kenneth D. Schmidt and Associates, 2003 and 2004). Both checks showed that the model results are accurate.

Subsidence at Mendota Dam

Historical subsidence monitoring at Mendota Dam has relied on periodic land leveling surveys. Stoddard and Associates conducted annual leveling surveys during 1996-2002, and a total of about 1.25 feet of subsidence at Mendota Dam between 1984 and 1996 was estimated by comparing results of a 1984 Reclamation survey with the first Stoddard survey in 1996. This level of subsidence could be enough to affect water distribution systems that rely on gravity flow.

Compaction data collected since 1999 at two extensometers in the Mendota area suggest that much less subsidence has occurred in recent years (EIS Sections 3.4.4 and 4.2). Compaction above the Corcoran Clay is currently monitored at the Fordel extensometer located west of the Pool (operated by the MPG) and the Yearout Ranch extensometer located east of the Pool (operated by the Exchange Contractors). The cumulative compaction from January 2000 to January 2004 due to all pumping and other factors was 0.006 foot at Fordel and 0.06 foot at Yearout Ranch. The EIS (Section 2.1.2.3) states that MPG transfer pumping cannot cause more than an average of 0.005 foot of subsidence per year at either location. This would represent a total of 0.05 foot over 10 years, which is not enough to have a measurable

Mr. Steve Brueggemann
October 25, 2004
Page 3

effect on the water distribution system. Results of subsidence monitoring are included and will continue to be provided in MPG annual reports.

Please let us know if you have any questions or need additional information.

Sincerely,

LUHDORFF AND SCALMANINI
CONSULTING ENGINEERS



Glenn Browning
Senior Hydrologist

CC: William Pipes, Mendota Pool Group Agent
Sheryl Carter, U.S. Bureau of Reclamation
Ted Donn, Tetra Tech, Inc.